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REMARKS/ARGUMENTS

Claims 1, 21 and 22 have been amended to replace "leguminous plant" with seedling of soybean or dry bean and "meristematic tissue" with apical meristem.

Claim 21 has been further amended to include a new step (a) which recites growing a transformed soybean or dry bean plant from the transformed seedling produced by the method of claim 1.

Claim 22, step (b) has been further amended to specify suspending the root of the soybean or dry bean seedling in buffer and contacting said root.

The above claim amendments have rendered the subject matter of dependent claims 3, 5, 11 to 13, 25 to 27 and 31 to 33 redundant and therefore, these claims have been canceled.

There are now 12 claims pending.

Rejection under 35 USC §112, 1st paragraph

Claims 1, 3, 5 to 13, 21, 22 and 24 to 33 remain rejected on the grounds that the specification does not provide adequate basis to support a genus of leguminous plants.

Without acquiescing to the Examiner's position, and merely to advance prosecution of the instant application, claims 1, 21 and 22 have been amended to specify that the "leguminous plant" is a seedling of soybean or dry bean.

The cancellation of claims 3, 5, 11 to 13, 25 to 27 and 31 to 33 renders the rejection moot thereto.

The rejection to claims 6 to 10, 24 and 28 to 30 is addressed by virtue of their dependency to one or the other of claims 1 and 22, as presently amended.

Withdrawal of the rejection is respectfully requested in view of claims 1, 6 to 10, 21, 22, 24 and 28 to 30, as presently amended.

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Rejection under 35 USC §103

Claims 1, 3, 5 to 13, 21, 22 and 24 to 33 remain rejected on grounds of obviousness in view of Burchi *et al.* having regard to one or the other of Bidney *et al.* (U.S. Patent No. 6,166,291), Griesbach and Vik *et al.*

As discussed *supra*, claims 1, 6 to 10, 21, 22, 24 and 28 to 30 have been amended.

Claims 3, 5, 11 to 13, 25 to 27 and 31 to 33 have been canceled thus rendering the rejection moot thereto.

Applicant submits that the claims, as presently amended, are inventive and patentably distinguishable over the prior art.

Referring to the Examiner's comments concerning Vik *et al.*, Applicant acknowledges that it was cited only as a reference of interest. However, the issue that remains to be addressed is why it was ever cited at all. More specifically, Applicant fails to see its relevance insofar as illustrating a fundamental concept in electrophoresis in order to justify that the electrode configuration taught in Burchi *et al.* was apparently incorrect due to "typographical errors".

Referring to the Burchi *et al.* reference at page 164, last paragraph under "*Electrophoresis device*", it states that a platinum wire was inserted in a pipette tip containing plasmid DNA, the platinum wire was "connected to the cathode of a power supply" [emphasis added] and the pipette tip placed on the meristem dome of the axillary shoot. Further, another platinum wire was inserted into the soil in contact with the roots and then "connected to the anode" [emphasis added]. By definition, a "cathode" is a negatively charged electrode that is the source of electrons in an electrical device (i.e. negative terminal) and an "anode" is a positively charged electrode by which electrons leave an electrical device (i.e. positive terminal). Therefore, in Applicant's view, the electrode configuration described in Burchi *et al.* is fundamentally correct.

Further, Applicant never disputed that the electrode configuration recited in the instant claims was different to that taught in Burchi *et al.* and/or that the electrode configuration distinguished the claims over the prior art. In the previous response, Applicant stated:

Burchi does not teach (1) the positive lead in buffer, (2) a leguminous plant, and (3) T-DNA region and border sequences.

The distinction that Applicant intended by the phrase "(1) the positive lead in buffer" was that Burchi does not teach that the root is connected to the positive lead in buffer. In other words, the distinction made between the instant invention and the prior art is the medium in which the roots are suspended, namely soil versus buffer, and not with the lead. Regrettably, this point may not have been clear initially and could be where the source of the confusion lies.

Bidney *et al.* (U.S. Patent No. 6,166,291) disclose a method of producing a pathogen resistant hybrid plant using explants cocultivated with *Agrobacterium* to facilitate DNA delivery. The soybean transgenics were produced by co-culturing soybean explants with *Agrobacterium* species carrying a plasmid into which is inserted the gene of interest.

Griesbach teaches transformation of orchid embryos or protocorms by electrophoresis in a dry state.

Applicant respectfully submits that neither Burchi *et al.*, Bidney *et al.*, nor Griesbach teach or suggest all of the elements and limitations recited in the claims nor do any of the prior art references suggest any desirability to combine the elements as claimed for transforming a plant as claimed. Based on the combined teachings of these references, it is also asserted that a skilled artisan would have absolutely no reasonable expectation of success that an intact plant having the root suspended in buffer could be transformed with DNA by applying a low amperage current as described in the instant application.

In summary, Applicant respectfully submits that claims, as presently amended, are inventive and patentably distinguishable over the prior art and that a *prima facie* case of obviousness can not be established based on these references.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested in view of the claims, as presently amended.

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Allowable Subject Matter

Applicant acknowledges with appreciation that the Examiner considers that the foregoing claim amendments would result in allowance of this application. Accordingly, the amendments presented herein have been made to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants' agreement with or acquiescence in the Examiner's position. Applicants reserve the right to pursue the subject matter canceled during prosecution of the instant application, in a related application.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

Applicants invite the Examiner to call the undersigned at (613) 232-2486 if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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